



S/N 09/834,095

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Yoshihiro Kawaoka

Examiner: Terry A. McKelvey

Serial No.: 09/834,095

Group Art Unit: 1636

Filed: April 12, 2001

Docket: 800.026US1

Title: VIRUSES COMPRISING MUTANT ION CHANNEL PROTEIN

RESPONSE TO RESTRICTION REQUIREMENT

RECEIVED

Commissioner for Patents
Washington, D.C. 20231

AUG 09 2002

TECH CENTER 1600/2900

Sir:

In response to the Restriction Requirement mailed July 1, 2002, Applicant provisionally elects, with traverse, the claims of Group I (claims 1-9 and 25-26), directed to an isolated and purified recombinant influenza virus comprising a mutant ion channel protein which lacks or has reduced activity relative to the corresponding wild-type ion channel protein, isolated recombinant influenza virus comprising a mutant ion channel protein prepared by contacting a host cell with a plurality of influenza virus vectors, and a host cell contacted with a recombinant influenza virus comprising a mutant ion channel protein. With regard to the election of species, Applicant provisionally elects, with traverse, the species M2 protein. Claims 1-6, 9 and 25-26 read on M2 protein. Reconsideration and withdrawal of the Restriction Requirement and the election of species, in view of the remarks below, is respectfully requested.

The Restriction Requirement is traversed on the basis that the inventions are so closely related within the context of the disclosure of the application that they cannot properly be considered independent and distinct within the statutory meaning of 35 U.S.C. § 121. Claims directed to an isolated and purified recombinant influenza virus comprising a mutant ion channel protein which lacks or has reduced activity relative to the corresponding wild-type ion channel protein, isolated recombinant influenza virus comprising a mutant ion channel protein prepared by contacting a host cell with a plurality of influenza virus vectors, and a host cell contacted with a recombinant influenza virus comprising a mutant ion channel protein (claims 1-9 and 25-26) are clearly related to claims directed to a method of preparing a recombinant influenza virus comprising a mutant ion channel protein which lacks or has reduced activity relative to the corresponding wild-type ion channel protein (claims 11-13; Group III) and claims directed to a vaccine comprising a recombinant influenza virus comprising a mutant ion channel protein which



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lacks or has reduced activity relative to the corresponding wild-type ion channel protein and a method to immunize a vertebrate which employs such a virus (claims 10 and 18-21; Group II). Thus, the claims in at least Groups I-III are clearly related.

The Restriction Requirement is also traversed on the basis that Restriction Requirements are optional in all cases. M.P.E.P. § 803. If the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it arguably may include claims to distinct or independent inventions. M.P.E.P. § 803. Moreover, it is submitted that Applicant should not be required to incur the additional costs associated with the filing of multiple divisional applications in order to obtain protection for the claimed subject matter. Due to the relatedness of the subject matter of the claims in at least Groups I-III, the claims in at least Groups I-III can be efficiently and effectively searched in a single search with no additional burden placed on the Examiner. Thus, the Restriction Requirement is properly traversed. Accordingly, reconsideration and withdrawal of the Restriction Requirement is respectfully requested.

In the event the Examiner remains of the opinion that the restriction is proper as stated in the Restriction Requirement dated July 1, 2002, Applicant's Representatives respectfully request rejoinder of Groups II-III with Group I, upon a notice of allowable subject matter for the claims in Group I.

With respect to the requirement to elect species, the requirement is traversed on the basis that the species M2 protein, NB protein and CM1 protein have a disclosed relationship, i.e., they are ion channel proteins of influenza virus type A, influenza virus type B, and influenza virus type C, respectively (page 10, lines 18-24). Thus, the requirement for an election of species is properly traversed and reconsideration is respectfully requested.

The Examiner is invited to contact Applicant's Representatives at the number given below if there are any questions regarding this Response or if prosecution of this application may be assisted thereby.

Respectfully submitted,

YOSHIHIRO KAWAOKA,

By his Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(612) 373-6959

Date August 1, 2002

By Janet E. Embretson

Janet E. Embretson

Reg. No. 39,665

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 1st day of August, 2002.

Dawn M. Boyle

Name

Signature

Dawn M. Boyle